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Hyalella armata (Crustacea, Amphipoda, Hyalellidae) and the description of a related new species from Lake Titicaca

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Abstract

Hyalella armata (Faxon, 1876) was considered for a long time to be a monotypic species. The peculiar morphology, very distinct from other species in Lake Titicaca, was not analysed in detail after the original description. However, the present authors' study of an extensive collection from The Natural History Museum in London has revealed two morphologically distinct species. Descriptions of *H. armata* and the new species *H. longispina* are given.

Diagnosis of *Hyalella longispina* n. sp. (Figs 1, 2): Body (Fig. 1) with a posterior dorsal transverse ridge on every segment. Coxae 1 to 4 acuminate. Coxa 4 excavated posteriorly, and with deep acumination at right angle to sagittal body plane. Lateral process of coxa 4 strongly elongate (Fig. 2), distance between left and right process apices longer than body length (that distance shorter than body length in *H. armata*). Eyes pigmented. Antenna 1 shorter than antenna 2. Antenna 2 less than half body length. Mandible incisor toothed. Maxilla 1 palp uniarticulate, longer than wide, reaching more than half the distance between base of palp and tip of setae on outer plate; inner plate slender, with two strong and pappose apical setae. Maxilla 2 inner plate with one strong pappose seta on inner margin. Gnathopod 1 propodus quadrangular (length less than twice maximum width), hatchet-shaped, inner face with more than ten pappose setae, distoposterior and distoanterior borders without setose scales. Gnathopod 2 propodus triangular, palm longer than posterior margin, slope oblique, anterior edge with a small process. Telson wider than long, apically rounded, with more than two short simple setae, arranged symmetrically on the apical margin. Lateroventral sternal gills present on segments 3 to 7.
Types and locality: Holotype male, 10 mm; PERU, Lake Titicaca, Choccocoyo Bay, St. P 6, GIC 481, 11-23 m, leg. Crawford, 25.VI.1937. Paratypes (collecting data as holotype): allotype female, 9 mm; 106 males, 6-10mm; 93 females, 5-10 mm. All deposited at The Natural History Museum, London (holotype: 2002.311; allotype: 2002.312; other paratypes: 2002.313-322).

Key words: Crustacea, Amphipoda, *Hyalella*, Lake Titicaca, taxonomy

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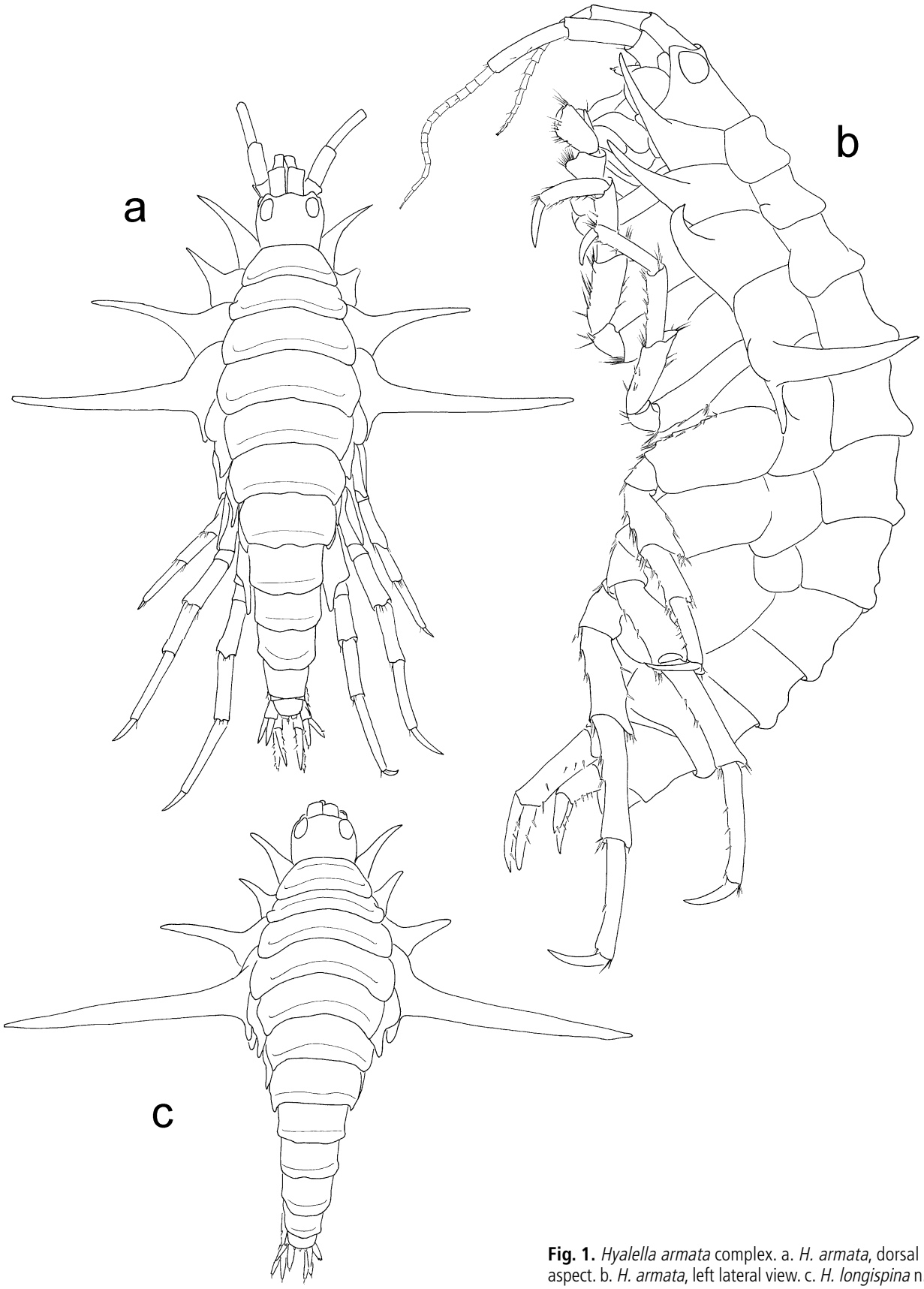

Fig. 1. *Hyalella armata* complex. a. *H. armata*, dorsal habitus aspect. b. *H. armata*, left lateral view. c. *H. longispina* n. sp.

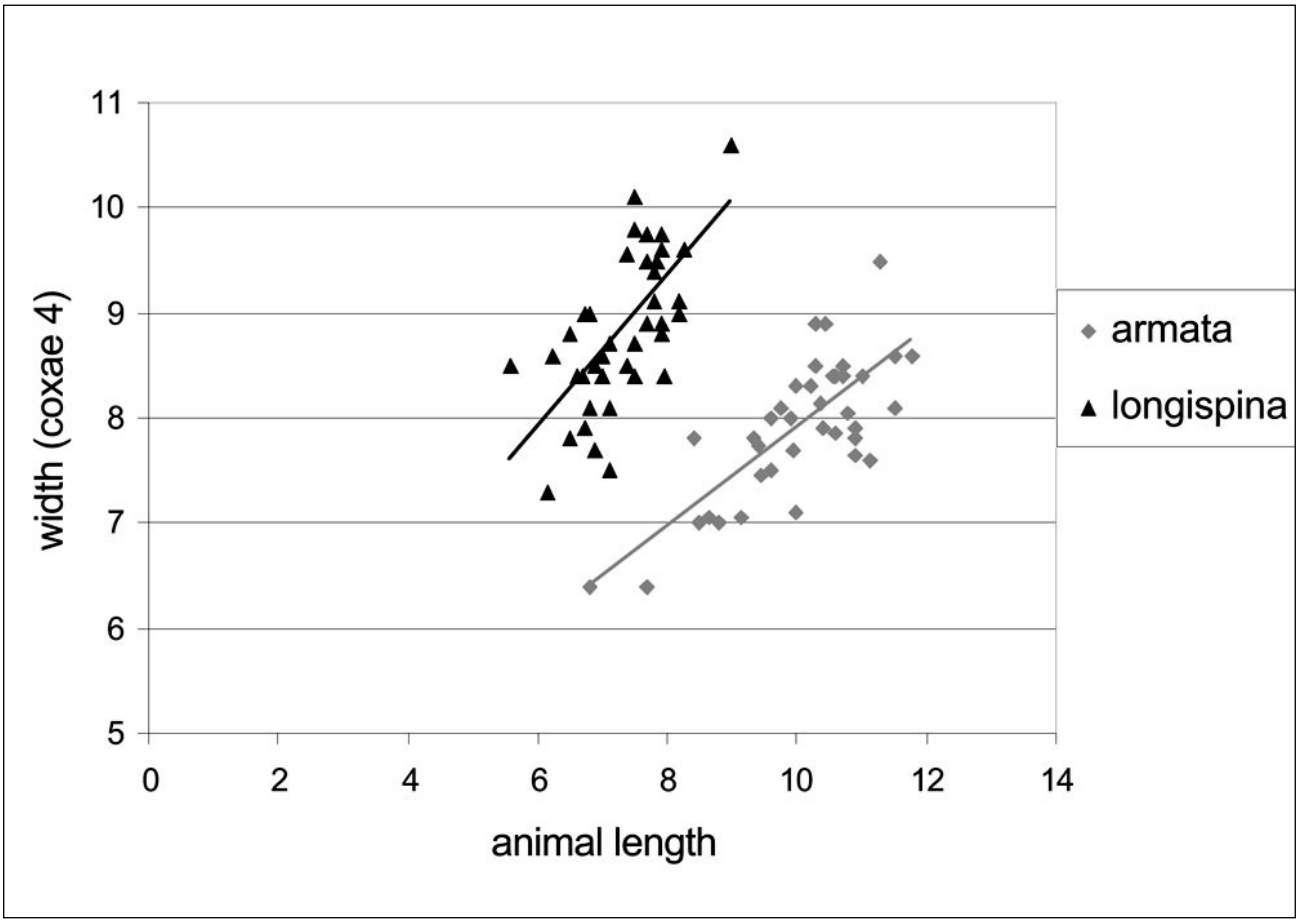

Fig. 2. Body length vs width for two populations of the *Hyalella armata* complex, n=40. The two separate clouds of dots show the distinction between *H. longispina* n. sp. (black triangles) from Choccocoyo-Bay, GIC 481, and *H. armata* (grey diamonds) from Coata Bay, GIC 263.